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1,2-DIOXETANE DERIVATIVES AND REAGENTS EMPLOYING THEM

The present invention relates to 1,2-dioxetane derivatives. The 1,2-dioxetane derivatives of the present invention are compounds which are capable of inducing chemiluminescence and can be used, for example, as substrates for immunoassay.

Heretofore, various 1,2-dioxetane derivatives have been synthesized, and it is known that compounds having a spiroadamantyl group bonded at the 3-position, are useful as chemiluminescent substrates (see, for example, JP-B-5-21918, and JP-B-5-45590). Further, as produced by the present inventors, various compounds are known (see, for example, JP-A-8-245615, JP-A-8-169885, JP-A-8-165287 and JP-A-2002-338576). These 1,2-dioxetane derivatives have an enzyme recognition site such as a phosphate ester group and will be triggered by an enzyme to produce luminescence. A series of such compounds are useful for a method wherein the activities of an enzyme labeled on an antigen or antibody adsorbed on a solid phase after an immunoreaction, are detected by a chemiluminescent